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EXAMINER

TANG, KUO LIANG J

ART UNIT PAPER NUMBER

2122

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,761

Applicant(s)

RAJARAJAN ET AL.

Examiner

Kuo-Liang J Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/04/2004 Interview Summary.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Interview Summary dated 11/04/2004.

The priority date for this application is 12/20/2000.

This Office Action removes the Final Action mailed 10/6/2004 based on the removal of the Sobeski patent (US Patent No. 6,499,035) under 35 U.S.C. 103 (c) (see RE page 19 and 23, filed 7/2/2004). The rejection of Claims 6, 40 and 50 has been withdrawn.

Response to Arguments

2. Claims 1-51 are pending and have been examined. Claim 4 is amended. Claims 45-51 are added.

Claims 1-5, 7-10, 15-16, 22-26, 31, 35-39, 41, 43-49 and 51 remain rejected under 35 U.S.C. 102(b) as being anticipated by Quatrani.

Claims 6, 40 and 50 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Hemzal.

Claims 11-14, 21, 27-30 and 34 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Battat..

Claim 17 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Chui.

Claims 18, 20 and 32-33 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Scarborough.

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Claim 19 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Gudmundson.

Claim 42 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Bacon.

3. Applicant's arguments filed 7/2/2004 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

As for claims 1 and 4, Applicant argues Quatrani does not distinguish semantics from notations (See RE page 15, line 14), and Quatrani does not disclose separately providing semantics independent of notations as recited by applicants. Nor does Quatrani disclose or suggest a semantic data structure independent of a notation data structure (see RE page 15, 18-20 and page 16, lines 22-23). The use of separately providing semantics independent of notation is far from using notations including semantics (see RE page 16, lines 1-2).

Examiner's response:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., distinguish semantics from notations) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Objections

4. Claim 45 is objected to because of the following informalities:

Status Indicator of Claim 45 is incorrect presented as “Original”, it should be “New”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 7-10, 15-16, 22-26, 31, 35-39, 41, 43-49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Quatrani, “Visual Modeling with Rational Rose and UML”, Addison-Wesley, 3rd Printing, April, 1998 (hereinafter Quatrani).

As Per Claim 1, Quatrani teaches the Rational Rose product is designed to provide the software developer with a complete set of visual modeling tools for development of robust, efficient solutions to real business needs in the client/server, distributed enterprise, and real-time system environments. (E.g. see pg. 12, last paragraph and associated text). In that Quatrani discloses the method that covering the steps of:

“providing a plurality of notations, each notation comprising a visual representation of a model element;” (E.g., see UML notation at pg. 77-78, Figure 6-1 & 6-2);

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“providing a plurality of semantics, each semantic comprising a meaning in a modeling environment of a model element,” (E.g., see association at pg. 77-78, Figure 6-1 & 6-2); and

“associating a selected notation with a selected semantic to provide a model element having a visual representation and a meaning in a modeling environment.” (E.g., again see association at pg. 77-78, Figure 6-1 & 6-2).

As per Claim 2, the rejection of claim 1 is incorporated and further Quatrani teaches

“the selected notation and the selected semantic each comprise an object, and wherein associating the selected notation with the selected semantic comprises connecting the selected notation object to the selected semantic object via object interfaces.” (E.g., see relationships pg. 77:1-9 & see creating an association relationship pg. 77:21-25. by using “click”, and “drag” as interface).

As per Claim 3, the rejection of claim 2 is incorporated and further Quatrani teaches

“the objects are connected to a paradigm server.” (E.g. see pg. 12, last paragraph, server).

As Per Claim 4, Quatrani teaches:

“a notation data structure having a set of at least one interface for accessing a plurality of methods therein,” (E.g. see pg. 65-74, Figure 5-3 browsing view has a drop-down feature as interface).

“a semantic data structure having a set of at least one interface for accessing a plurality of methods (E.g. see pg. Pg. 69, Figure 5-4, method: ‘course form’, ‘the Manager’, and ‘aCourse

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Course') therein, the semantic data structure being associated with the notation data structure to provide a model element." (E.g. see pg. Pg. 65-74, Figure 5-4, associated: 1. set course info; 2. – 4.).

As per Claim 5, the rejection of claim 4 is incorporated and further Quatrani teaches "the notation data structure comprises a notation object and the semantic data structure comprises a semantic object, (E.g., see association relationships pg. 77-78, Figure 6-1 & 6-2) and wherein a paradigm server associates the notation object with the semantic object to provide the model element." (E.g. see pg. 12, last paragraph, server).

As per Claim 7, the rejection of claim 4 is incorporated and further Quatrani teaches "one of the methods of the notation data structure provides information identifying a library of notations to which the notation data structure belongs." (E.g., see DLLs pg. 153:1-12, Figure 11-10).

As per Claim 8, the rejection of claim 4 is incorporated and further Quatrani teaches "one of the methods of the notation data structure provides type information corresponding to the notation data structure." (E.g., see stereotype pg. 46:8-18, Figure 4-4).

As per Claim 9, the rejection of claim 4 is incorporated and further Quatrani teaches

“one of the methods of the notation data structure provides subtype information corresponding to the notation data structure.” (E.g., see pg. 102, Figure 7-6, Course.name, description, or creditHours).

As per Claim 10, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the notation data structure provides a name of the notation data structure.” (E.g., see naming objects pg. 66, Figure 5-1).

As per Claim 15, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the notation data structure provides information indicative of whether the notation is capable of visually indicating attach-points at which arcs can connect.” (E.g., see line between methods pg. 77, Figure 6-1, pg. 78 6-2).

As per Claim 16, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the notation data structure provides information indicative of a minimum and maximum size of the notation.” (E.g., see multiplicity pg. 83-84, Figure 6-7, “0..4” where 0 is min, 4 is max).

As per Claim 22, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the notation data structure provides information identifying a library of semantics (E.g., see DLLs pg. 153:1-12, Figure 11-10) to which the semantic data structure belongs.” (E.g., see pg. 86, Table 6-1, Class Relationships).

As per Claim 23, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the semantic data structure provides type information corresponding to the semantic data structure.” (E.g., see pg. 86, Table 6-1).

As per Claim 24, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the semantic data structure provides subtype information corresponding to the semantic data structure.” (E.g., see pg. 102, Figure 7-6, Course:name, description, or creditHours) and (E.g., see pg. 86, Table 6-1, Class Relationships).

As per Claim 25, the rejection of claim 4 is incorporated and further Quatrani teaches “one of the methods of the semantic data structure provides a name of the semantic data structure.” (E.g., see naming relationships pg. 80-83, Figure 6-5, ‘manages’).

As per Claim 26, the rejection of claim 4 is incorporated and further Quatrani teaches “the semantic data structure includes a set of at least one requirement related to notation data structures which can connect thereto” (E.g., see association pg. 77-78, Figure 6-1 & 6-2), (E.g., see pg. 102, Figure 7-6, Course:name, description, or creditHours) and (E.g., see pg. 86, Table 6-1, Class Relationships).

As per Claim 31, the rejection of claim 26 is incorporated and further Quatrani teaches

“one requirement of the set requires that the notation data structure have a number of attach-points at which arcs can connect.” (E.g., see multiplicity pg. 87, Figure 6-9, item ‘ProfessorCourseManager’ has 2 connection points).

As per Claim 35, the rejection of claim 4 is incorporated and further Quatrani teaches “the model element corresponds to a node, and wherein the node includes at least one method to determine the notation data structure and semantic data structure and corresponding thereto.” (E.g., see pg. 87, Figure 6-9, item ‘Course’).

As per Claim 36, the rejection of claim 4 is incorporated and further Quatrani teaches “the model element corresponds to an arc, and wherein the arc includes at least one method to determine the notation data structure and semantic data structure and corresponding thereto.” (E.g., see pg. 87, Figure 6-9, line ‘manages’ & pg. 115, Figure 8-5).

As per Claim 37, Quatrani teaches “a notation comprising a representation of a model element in at least one modeling environment, the notation including an interface configured to provide access to methods therein,” (E.g., see association at pg. 77-78, Figure 6-1 & 6-2);

“a semantic comprising a meaning of a model element in at least one modeling environment, the semantic including an interface configured to provide access to methods therein,” (E.g., again see association at pg. 77-78, Figure 6-1 & 6-2); and

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“a paradigm server, (E.g. see pg. 12, last paragraph, server) the server connected to a modeling environment and configured to access the methods of the notation and the methods of the semantic via their respective interfaces, (E.g., see relationships pg. 77:1-9 & see creating an association relationship pg. 77:21-25. by using “click”, and “drag” as interface) and further configured to enable a determination as to whether the paradigm server, notation and semantic are each compatible, and if they are compatible, to associate the notation with the semantic to provide a model element in the modeling environment.”

As per Claim 38, the rejection of claim 37 is incorporated and further Quatrani teaches “the notation and the semantic each comprise an object.” (E.g., see SYSTEM pg. 77:1-9 & see creating an association relationship pg. 77:21-25. by using “click”, and “drag” as interface).

As per Claim 39, Quatrani teaches “selecting a selected notation from a plurality of notations, each notation comprising a visual representation of a model element;” (E.g., see association at pg. 77-78, Figure 6-1 & 6-2). “selecting a selected semantic from plurality of semantics, each semantic comprising a meaning in a modeling environment of a model element;” (E.g., see association at pg. 77-78, Figure 6-1 & 6-2); and “validating whether the selected notation can be associated with the selected semantic.” (E.g., see pg. 95:26-32 where states “... a course might have to determine ... before it adds ...”).

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As per Claim 41, the rejection of claim 39 is incorporated and further Quatrani teaches “associating the selected notation with the selected semantic to provide a model element.” (E.g., see association at pg. 77-78, Figure 6-1 & 6-2).

As per Claim 43, the rejection of claim 41 is incorporated and further Quatrani teaches “connecting the selected notation object to the selected semantic object via object interfaces.” (E.g., see creating an association relationship pg. 77:21-25. by using “click”, and “drag” as interface).

As per Claim 44, the rejection of claim 41 is incorporated and further Quatrani teaches “having computer-executable instructions.” (E.g., see pg. 175-176, in order to testing after coding, computer-executable instructions are inherent available).

As Per Claim 45, is the computer-readable medium claim corresponding to the method claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claims 46-47, the rejection of claim 45 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 2-3 respectfully.

As Per Claim 48, is the computer-readable medium claim corresponding to the method claim 4 and is rejected under the same reason set forth in connection of the rejection of claim 4.

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As per Claims 49 and 51, the rejection of claim 48 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 5 and 26 respectfully.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 40 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Hemzal US Patent No. 6,542,595.

As per Claim 6, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose server validating that the semantic object. However, Hemzal teaches teaches in a manner such as "the server validates that the semantic object" (E.g., see col. 10:1-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hemzal into the system of Quatrani, so that server validates that the semantic object. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that a validation module can validate configuration data which can be used as operating parameters to a generating module, server, control module and storage.

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As per Claim 40, the rejection of claim 39 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 6.

As per Claim 50, the rejection of claim 49 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 6.

7. Claims 11-14, 21, 27-30 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Battat et al. US Patent No. 5,958,012 (hereinafter Battat).

As per Claim 11, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose the notation data structure is capable of being resized. However, Battat teaches teaches "one of the methods of the notation data structure provides information indicative of whether the notation data structure is capable of being resized." (E.g., see module changes in position in col. 9:18-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to resize the notation data structure. The modification would have been obvious because one of ordinary skill in the art would have been motivated to have all the displayed objects fitted in the window.

As per Claim 12, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose the notation data structure is visually indicating selected and unselected states. However, Battat teaches teaches "one of the methods of the notation data structure provides information indicative of whether the notation is capable of visually indicating selected and

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unselected states.” (E.g., see col. 12:19-67 to 13:1-7 and FIG. 10G, item ‘Mode’ has 3 to be selected(‘Camera Fly’, ‘Move Object’ and ‘Edit Object’)). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to visually indicating selected and unselected states. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to select each of the various models used in the adaptive display.

As per Claim 13, the rejection of claim 4 is incorporated and further Quatrani doesn’t explicitly disclose the notation is capable of being in a visible or a hidden state. However, Battat teaches teaches “one of the methods of the notation data structure provides information indicative of whether the notation is capable of being in a visible or a hidden state.” (E.g., see col. 8:60-67 to 9:1-17 and FIG. 3a, item 323). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to be capable of being in a visible or a hidden state. The modification would have been obvious because one of ordinary skill in the art would have been motivated to determine whether a preset threshold for visualization has been exceeded with either the status indicator being hidden at module 324 or the appropriate change of status signal being sent.

As per Claim 14, the rejection of claim 4 is incorporated and further Quatrani doesn’t explicitly disclose the notation is capable of visually indicating hover-related states. However,

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Battat teaches teaches “one of the methods of the notation data structure provides information indicative of whether the notation is capable of visually indicating hover-related states.” (E.g., see col. 14:25-36 and FIG. 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to be capable of visually indicating hover-related states. The modification would have been obvious because one of ordinary skill in the art would have been motivated to when traveling over the map, status indicators show the aggregate status for cities and buildings, in the form of globes that hover over the objects.

As per Claim 21, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of a number of states that the notation can visually indicate. However, Battat teaches teaches “one of the methods of the notation data structure provides information indicative of a number of states that the notation can visually indicate.” (E.g., col. 12:19-67 to 13:1-7 and FIG. 10G, item ‘Mode’ has 3 to be selected(‘Camera Fly’, ‘Move Object’ and ‘Edit Object’)). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to provide information indicative of a number of states that the notation can visually indicate. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to select each of the various models used in the adaptive display.

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As per Claim 27, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose the notation data structure be resizable. However, Battat teaches teaches "one requirement of the set requires that the notation data structure be resizable." (E.g., see col. 9:18-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to resize the notation data structure. The modification would have been obvious because one of ordinary skill in the art would have been motivated to have all the displayed objects fitted in the window.

As per Claim 28, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose the notation data structure is visually indicating selected and unselected states. However, Battat teaches teaches "one requirement of the set requires that the notation data structure be capable of visually indicating a selected or an unselected state." (E.g., see col. 12:19-67 to 13:1-7 and FIG. 10G, item 'Mode' has 3 to be selected('Camera Fly', 'Move Object' and 'Edit Object')). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to visually indicating selected and unselected states. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to select each of the various models used in the adaptive display.

As per Claim 29, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose the notation is capable of being in a visible or a hidden state. However, Battat teaches teaches "one requirement of the set requires that the notation data structure be capable of

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being in a visible or a hidden state.” (E.g., see col. 8:60-67 to 9:1-17 and FIG. 3a, item 323).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to be capable of being in a visible or a hidden state. The modification would have been obvious because one of ordinary skill in the art would have been motivated to determine whether a preset threshold for visualization has been exceeded with either the status indicator being hidden at module 324 or the appropriate change of status signal being sent.

As per Claim 30, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose the notation is capable of visually indicating at least two distinct hover-related states. However, Battat teaches teaches “one requirement of the set requires that the notation data structure be capable of visually indicating at least two distinct hover-related states.” (E.g., see col. 14:25-36 and FIG. 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to be capable of visually indicating at least two distinct hover-related states. The modification would have been obvious because one of ordinary skill in the art would have been motivated to when traveling over the map, status indicators show the aggregate status for cities and buildings, in the form of globes that hover over the objects.

As per Claim 34, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose the notation data structure having a number of states. However, Battat teaches teaches “one requirement of the set requires that the notation data structure have a number of

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states.” (E.g., col. 12:19-67 to 13:1-7 and FIG. 10G, item ‘Mode’ has 3 to be selected(‘Camera Fly’, ‘Move Object’ and ‘Edit Object’)). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, for the notation data structure to have a number of states. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to select each of the various models used in the adaptive display.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Chui el. US Patent No. 6,041,143 (hereinafter Chui).

As per Claim 17, the rejection of claim 4 is incorporated and further Quatrani doesn’t explicitly disclose the notation is capable of zooming operations. However, Chui teaches teaches “one of the methods of the notation data structure provides information indicative of whether the notation is capable of zooming operations.” (E.g., see col. 2:14-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chui into the system of Quatrani, to be capable of capable of zooming operations. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that the storage requirements for image files are reduced by storing only thumbnail data and the full image data in an image file, and producing image data structures for other resolution levels on the fly.

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9. Claims 18, 20 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Scarborough et al. US Patent No. 6,353,448 (hereinafter Scarborough).

As per Claim 18, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of supported color depths. However, Scarborough teaches teaches "one of the methods of the notation data structure provides information indicative of supported color depths." (E.g., see col. 9:66-67 to 10:1-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Scarborough into the system of Quatrani, to provide information indicative of supported color depths. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that screen display of an end-user configuration screen for adjusting color depth and image display resolution to indicate the status of an object.

As per Claim 20, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of the notation is capable of doing animations. However, Battat teaches teaches "one of the methods of the notation data structure provides information indicative of whether the notation is capable of doing animations." (E.g., see col. 1:45-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to provide information indicative of the notation is capable of doing animations. The modification would have been obvious because one of ordinary skill in the art would have been motivated so

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that website designers pay close attention to how much graphics, sound and animation could be included on their website pages.

As per Claim 32, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of supported color depths. However, Jain teaches teaches "one of the methods of the notation data structure provides information indicative of supported color depths." (E.g., see col. 9:66-67 to 10:1-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Jain into the system of Quatrani, to provide information indicative of supported color depths. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that screen display of an end-user configuration screen for adjusting color depth and image display resolution to indicate the status of an object.

As per Claim 33, the rejection of claim 26 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of the notation is capable of doing animations. However, Battat teaches teaches "one of the methods of the notation data structure provides information indicative of whether the notation is capable of doing animations." (E.g., see col. 1:45-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Battat into the system of Quatrani, to provide information indicative of the notation is capable of doing animations. The modification would have been obvious because one of ordinary skill in the art would have been motivated so

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that website designers pay close attention to how much graphics, sound and animation could be included on their website pages.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Gudmundson el. US Patent No. 5,907,704 (hereinafter Gudmundson).

As per Claim 19, the rejection of claim 4 is incorporated and further Quatrani doesn't explicitly disclose providing information indicative of an iconic representation. However, Gudmundson teaches teaches "one of the methods of the notation data structure provides information indicative of an iconic representation." (E.g., see col. 3:63-67 to 4:1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Gudmundson into the system of Quatrani, to provide information indicative of an iconic representation. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that user can clicks on the "minimize" icon, the window will be restored.

11. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quatrani in view of Bacon el. US Patent No. 6,430,538 (hereinafter Bacon).

As per Claim 42, the rejection of claim 41 is incorporated and further Quatrani doesn't explicitly disclose the associating is performed by a paradigm server. However, Bacon teaches teaches "the associating is performed by a paradigm server." (E.g., see col. 5:22-47). Therefore,

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it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Bacon into the system of Quatrani, so that the associating is performed by a paradigm server. The modification would have been obvious because one of ordinary skill in the art would have been motivated to reduce client side workload by using paradigm server to perform the associating.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is (571) 272-3705. The examiner can normally be reached on 8:30AM - 7:00PM (Monday – Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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